Experiencing Ethics Lecture Series

Featuring Dr. Sarah K. A. Pfatteicher

April 27, 2012 • 11:30 am-12:30 pm • Philip Guthrie Hoffman Hall 232

Engineering Success and Failure on 9/11

On the second Tuesday of September 2001, the Twin Towers of the World Trade Center returned to dust, taking with them some 2700 souls. A disaster of such magnitude asks us to explore our beliefs -- about religion, surely, but also about politics and social systems, and even about technology. Put simply, catastrophes such as the collapse of the Twin Towers can teach us not only about the construction of buildings, but about the structure of engineering itself.

The challenge in responding to any disaster is to move past shock and dismay and toward a productive resolve. The engineering profession faced special challenges as its members struggled to come to terms with the unprecedented collapse of these two engineering marvels. Should the towers be praised for how long they remained standing or should the focus be on the fact of their ultimate demise? Did it matter that the tower builders and the tower destroyers both drew on their training in architecture and engineering? Would it be more appropriate and constructive to view the towers' collapse as an unpredictable calamity or as a preventable outcome? And looking to the future, what does it mean for an engineer to act ethically in a post-9/11 world?

The struggle to find answers to such questions provides a means for exploring the purposes, goals, and responsibilities of the American engineering profession. This spectacularly unique disaster highlights engineering as an endeavor that is interconnected, complex, ambiguous, passion-filled, messy, people-oriented, and ultimately, hard. To grasp such complexities is not a sign of indecisiveness, but rather an indication of sophisticated understanding that characterizes what Twin Towers designer Leslie Robertson called the "very imperfect process" of engineering practice.

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Dr. Pfatteicher's research emphases include engineering ethics and education as well as disaster prevention and response. Both of these topics are covered in her recent book, *Lessons amid the Rubble: An Introduction to Post-Disaster Engineering and Ethics* (Johns Hopkins, 2010).

Dr. Pfatteicher serves on the Board of Directors for the National Institute for Engineering Ethics, the Ethics Advisory Board for the Wisconsin Institutes for Discovery, and the Chair's Advisory Council for the Inter-College Ethics Bowl. She received the American Society for Engineering Education's 2009 Olmsted Award.

Dr. Pfatteicher earned her bachelor's degree in physics and mathematics from Smith College and master's and doctoral degrees in the history of science from UW-Madison.

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